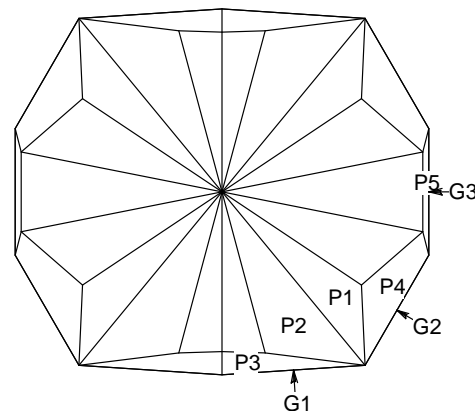
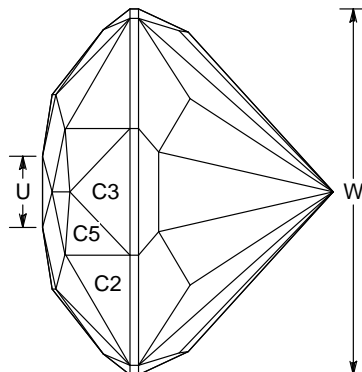
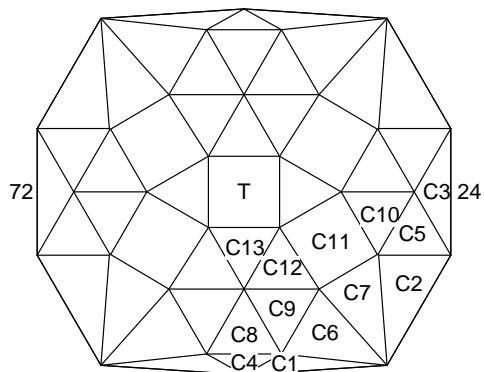


60

48

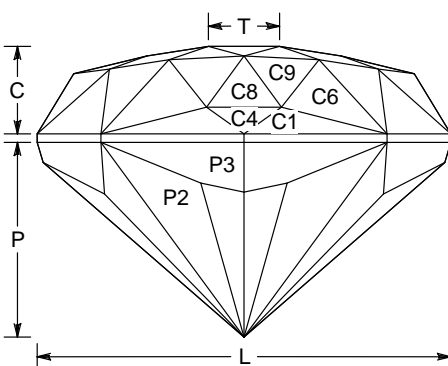
36



84

<96>

12



Tessellation 4 (F)

"Because fuck checkerboards, that's why."

Suite: Tessellation Party!

by Arya Akhavan (October 2012)

Angles for R.I. = 1.610

75 + 10 girdles = 85 facets

2-fold, mirror-image symmetry

96 index

L/W = 1.130 T/W = 0.194 U/W = 0.194

P/W = 0.532 C/W = 0.239

Vol./W³ = 0.359

PAVILION

P1	41.00°	12-18-24-30-36-60-66-72-78-84	Cut to centerpoint.
P2	42.78°	03-05-43-45-51-53-91-93	Meet at culet.
G1	90.00°	01-47-49-95	Set stone size.
G2	90.00°	16-32-64-80	Meet P1, P2, G1
P3	65.00°	01-47-49-95	Meet P1, P2, G1, G2 (level girdle)
P4	50.00°	16-32-64-80	Level girdle.
P5	73.36°	24-72	Meet P1, P4
G3	90.00°	24-72	Level girdle.

CROWN

C1	55.61°	01-47-49-95	Set girdle width.
C2	45.72°	16-32-64-80	Level girdle.
C3	58.73°	24-72	Level girdle.
C4	52.12°	96-48	Meet G1, C1
C5	44.72°	17-31-65-79	Meet G2, G3, C2, C3
C6	40.04°	03-45-51-93	Meet G1, G2, C1, C2
C7	35.91°	11-37-59-85	Meet G1, G2, C1, C2, C6
C8	38.20°	96-48	Meet C1, C4, C6
C9	37.23°	01-47-49-95	Meet C1, C4, C6, C8
C10	14.05°	20-28-68-76	Meet C3, C5
C11	12.57°	18-30-66-78	Meet C2, C5, C7, C10; C6, C7, C9
C12	10.87°	04-44-52-92	Meet C6, C7, C9, C11; C8, C9
C13	8.91°	96-24-48-72	Meet C8, C9, C12; C10, C11
T	0.00°	Table	Meet C11, C12, C13

This pattern is a heavy expansion on the F-type theme for tessellation designs. Since continuing perfect squares and triangles would require fractional indices, I threw in some "normal" facets to balance that out.

Written for golden topaz, but can be cut in materials from quartz to rutile (RI = 1.54 - 2.62) with no changes.

Suggested length = 8-12 mm

C:\Program Files (x86)\GemCAD\Designs (Mine)\Works in Progress\Tessellations\Tessellation 4 (F) - Because Fuck Checkerboards